

SEE SHEET 3 FOR PLAN SHEET LAYOUT  
AT TIME OF INVESTIGATION

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GEOTECHNICAL ENGINEERING UNIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	42308	1	4

CONTENTS

LINE	STATION	PLAN	PROFILE
-L-	10+17.43 - 12+11.55	4	

**ROADWAY  
SUBSURFACE INVESTIGATION**

COUNTY ASHE  
PROJECT DESCRIPTION REPLACE BRIDGE #327  
OVER LITTLE BUFFALO CREEK ON SR 1509

**INVENTORY**

**CAUTION NOTICE**

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
  2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

DC ELLIOT

CJ COFFEY

INVESTIGATED BY DM MULLEN

DRAWN BY DM MULLEN

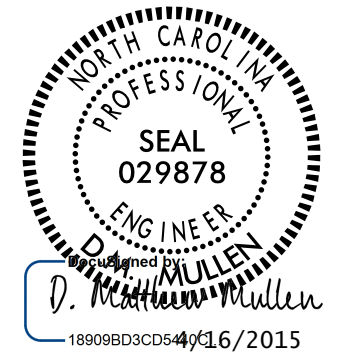
CHECKED BY SC CLARK

SUBMITTED BY JC KUHNE

DATE 1.30.2015

REFERENCE: 42308

PROJECT: B-5147



SIGNATURE

DATE

SIGNATURE

DATE

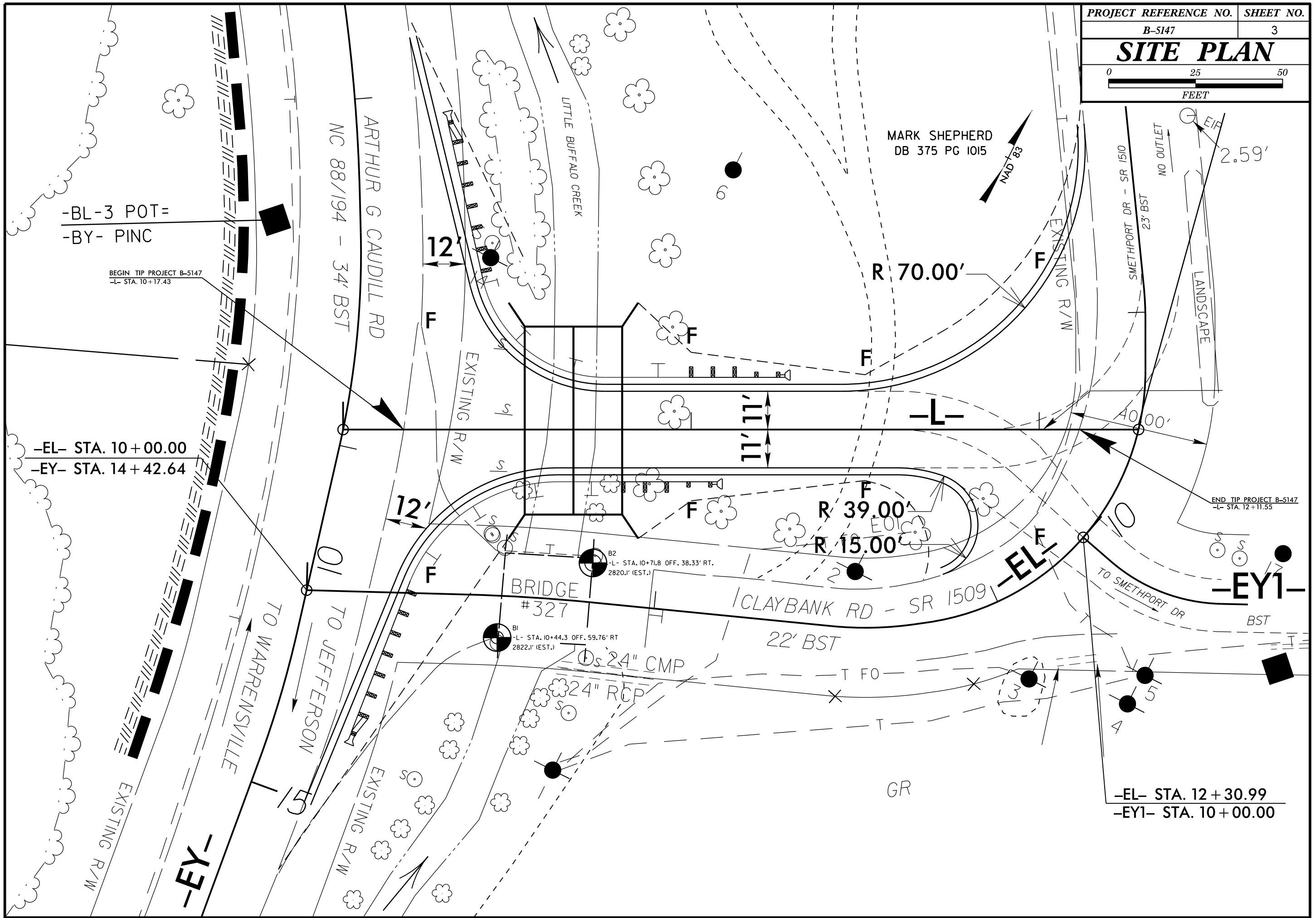
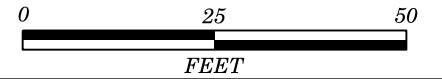
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table containing: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL LEGEND AND AASHTO CLASSIFICATION, MINERALOGICAL COMPOSITION, COMPRESSIBILITY, PERCENTAGE OF MATERIAL, GROUND WATER, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, FRACTURE SPACING, BEDDING, EQUIPMENT USED ON SUBJECT PROJECT, INDURATION, and NOTES.

**SITE PLAN**



-BL-3 POT=  
-BY- PINC

BEGIN TIP PROJECT B-5147  
-L- STA. 10+17.43

-EL- STA. 10+00.00  
-EY- STA. 14+42.64

END TIP PROJECT B-5147  
-L- STA. 12+11.55

-EL- STA. 12+30.99  
-EY1- STA. 10+00.00

ARTHUR G CAUDILL RD  
NC 88/194 - 34' BST

LITTLE BUFFALO CREEK

MARK SHEPHERD  
DB 375 PG 1015

BRIDGE  
#327

CLAYBANK RD - SR 1509

-EY-

-EL-

-EY1-

12'

12'

R 70.00'

R 39.00'

R 15.00'

SMETHPORT DR - SR 1510  
23' BST

NO OUTLET

2.59'

40.00'

22' BST

24" RCP

24" CMP

B1 -L- STA. 10+44.3 OFF. 59.76' RT.  
2822.1' (EST.)

B2 -L- STA. 10+71.8 OFF. 38.33' RT.  
2820.1' (EST.)

GR

TO WARRENSVILLE

TO JEFFERSON

TO SMETHPORT DR

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

LANDSCAPE

**NCDOT GEOTECHNICAL ENGINEERING UNIT**  
**BORELOG REPORT**

WBS 42308.1.1		TIP B-5147		COUNTY ASHE		GEOLOGIST Kuhne, J. C.									
SITE DESCRIPTION BRIDGE NO. 327 ON SR 1509, SOUTH CORNER							GROUND WTR (ft)								
BORING NO. B-1	STATION 10+44	OFFSET 60 ft RT	ALIGNMENT L			0 HR.	5.8								
COLLAR ELEV. N/A	TOTAL DEPTH 16.5 ft	NORTHING 983,486	EASTING 1,264,013			24 HR.	FIAD								
DRILL RIG/HAMMER EFF./DATE CME-550			DRILL METHOD NW Casing w/ SPT		HAMMER TYPE Automatic										
DRILLER Childers, R.		START DATE 04/01/09	COMP. DATE 04/01/09	SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
															0.0
		4.4	1	2	2										0.0
		9.4	1	2	6										6.9
		14.4	100/35												11.7
		16.5	60/0.0												16.5
ROADWAY EMBANKMENT BRN CLAYEY, SILTY SAND SAPROLITE BRN SILTY SAND - UPPER GREEN/GRAY SILTY SAND - LOWER WEATHERED ROCK WEATHERED BIOTITE GNEISS W/ PHYLLITIC LAYERS Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Depth 16.5 ft ON CRYSTALLINE ROCK, BIOTITE GNEISS															

WBS 42308.1.1		TIP B-5147		COUNTY ASHE		GEOLOGIST Kuhne, J. C.									
SITE DESCRIPTION BRIDGE NO. 327 ON SR 1509, NORTH CORNER							GROUND WTR (ft)								
BORING NO. B-2	STATION 10+72	OFFSET 38 ft RT	ALIGNMENT L			0 HR.	6.1								
COLLAR ELEV. N/A	TOTAL DEPTH 17.2 ft	NORTHING 983,518	EASTING 1,264,028			24 HR.	FIAD								
DRILL RIG/HAMMER EFF./DATE CME-550			DRILL METHOD NW Casing w/ SPT		HAMMER TYPE Automatic										
DRILLER Childers, R.		START DATE 04/01/09	COMP. DATE 04/01/09	SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
															0.0
		4.0	1	9	28										0.0
		9.0	6	10	23										7.5
		14.0	100/35												11.8
		15.6	100/3												17.2
		17.1	60/05												17.2
ROADWAY EMBANKMENT BROWN COARSE SAND W/ GRAVEL ALLUVIAL DK GRAY/GREEN SAND W/ ROUND PEBBLES WEATHERED ROCK WEATHERED BIOTITE GNEISS Boring Terminated WITH STANDARD PENETRATION TEST REFUSAL at Depth 17.2 ft ON CRYSTALLINE ROCK, BIOTITE GNEISS															